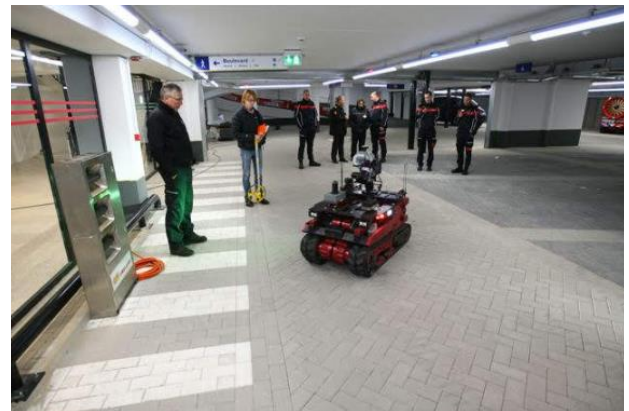


Assignment

In the Firebot project the Mechatronics Research Group cooperates with the fire departments of Amsterdam, The Hague and Rotterdam to improve the usage of 'firefighting robots'.



The firefighters control their robots using a remote control. The firefighter tries to avoid obstacles by looking at the video stream from a camera on the robot.

One of the major problems during current operations is that the video connection between the robot and the firefighter either drops out (especially in modern concrete buildings) and / or gets a large latency (time delay). The firefighter then does not spot an obstacle in time and may run the robot into it. The robots transmit video over Wifi or 4G.

The assignment is to evaluate which alternative solutions are available for usage by the fire brigade, taking into account the low number of robots in the Netherlands, the user requirements of the fire brigade. If possible, a prototype solution could be made and tested. The assignment will be carried out in close collaboration with researchers from the Mechatronics Research Group (Saxion, Enschede) and representatives of the fire brigade of Amsterdam and The Hague.

Practical Information

Student Profile: Mechatronics, Electrical Engineering, Applied Computer Science

Duration: starting between now and September 2020, duration is half a year. If you have any special requests we may "tune" the duration and/or content if possible.

Compensation: 230 euro per month, before taxes when carrying out this assignment at Mechatronics.

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